

EXHIBIT 1

July 2010

Recycling and the TSCA Inventory

**Q&A DOCUMENT: Recycling and the TSCA Inventory of Chemical Substances
Premanufacture Notification and Inventory Update Reporting Requirements**

This document is intended to provide guidance for reporting for the Premanufacture and Inventory Update Reporting requirements prescribed by the Toxic Substances Control Act, 15 U.S.C. 2601 et seq.

This document is not a substitute for the Toxic Substances Control Act, the Premanufacture Notification regulations, 40 CFR part 720, or the TSCA Chemical Inventory Reporting regulations, 40 CFR part 711. It does not establish any legal obligations beyond those that already exist pursuant to TSCA and its implementing regulations. In the event of conflict of this document with either TSCA or the regulations, TSCA and/or the regulations shall prevail.

What is a byproduct?

A byproduct is defined under 40 CFR 704.3 of the General Reporting and Record keeping Provisions for section 8(a) Information Gathering Rules and 40 CFR 720.3(d) of the Premanufacture Notification (PMN) Requirements as "... a chemical substance produced without a separate commercial intent during the manufacture, processing, use, or disposal of another chemical substance or mixture." A byproduct is often (but not necessarily) considered a waste by the manufacturer.

Is it possible I am manufacturing a chemical byproduct in the course of manufacturing an article?

Yes, potentially. You need to consider whether you are manufacturing a chemical substance as a byproduct when you are manufacturing an article. For example, if your use or processing of a chemical substance (chemical A) to manufacture an article coincidentally produces a different substance (chemical B), apart from the article you intended to manufacture, then you have manufactured a byproduct chemical substance. This situation may occur, for example, when you are stripping a substance off of a part of the article, and the stripping process results in the formation of a different substance (possibly resulting in a "used" stripping solution). Note that if you intentionally manufactured the chemical substance (chemical B) for a commercial purpose separate from that of the article, then you have manufactured a coproduct and not a byproduct. See discussion below of coproducts.

Is a byproduct required to be listed on or added to the TSCA Chemical Substance Inventory (the Inventory)? Are byproducts not listed on the TSCA Inventory subject to the TSCA section 5 premanufacture notification (PMN) requirements?

It depends. A byproduct is required to be listed on the Inventory if the byproduct is used for a separate non-exempt commercial purpose. The fact that a byproduct does not have a separate commercial purpose at the time it is manufactured is not dispositive of whether the byproduct is subsequently used for a commercial purpose after it is manufactured. A byproduct could be manufactured without a separate commercial purpose, and yet be used for some commercial purpose after it is manufactured.

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A byproduct that is not used for a commercial purpose after it is manufactured is not required to be listed on the TSCA Inventory (see 40 CFR 710.4(d)(2) of the TSCA Chemical Inventory Regulations and 720.30(h)(2) of the PMN requirements). In most cases, a byproduct that is used for a commercial purpose is required to be listed on the Inventory. But see the exceptions discussed below.

Are some byproducts with a commercial purpose exempted from the TSCA Inventory listing requirement?

There are some circumstances where a byproduct is exempted from the Inventory listing and PMN reporting requirements, notwithstanding the fact that it is used for a commercial purpose after it is manufactured. See Sections 710.4(d)(2) (in note) and 720.30(g). Section 720.30(g) states that a byproduct is excluded if:

“its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)”

In other words, when a byproduct is burned as a fuel, disposed of as a waste material including disposal in a landfill or for enriching the soil, or used for extracting component chemical substances, the manufacture of the byproduct is considered to have been for a limited commercial purpose and such manufacture is not required to be reported for Inventory listing, PMN, or IUR purposes. Further discussion is provided below.

Are byproducts required to be reported for Inventory Update Reporting (IUR)?

All substances that are listed on the Inventory are subject to the IUR requirements if their manufacture meets the production threshold requirements and they are not otherwise excluded. Byproducts that are manufactured in volumes of 25,000 pounds or more during the principal reporting year at a single site are subject to IUR requirements if used for a non-exempt commercial purpose (i.e., for the 2011 IUR, you need to consider your manufactured volume for calendar year 2010). However, 40 CFR 711.10(c) states that reporting is not required for those substances meeting the requirements of sections 720.30(g) or (h). Therefore, manufacturers are not required to report their byproduct if:

“...its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)”

In interpreting section 720.30(g) above, one needs to consider three important points.

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- First, although the manufacture of a byproduct is not reportable if the byproduct is subsequently disposed of as a waste for purposes of enriching the soil, a substance used as a fertilizer is not necessarily an excluded byproduct. For instance, if the substance's ordinary manner of use is as a fertilizer, then the substance is not a byproduct in the first place, and the provisions at 720.30(g) are inapplicable.
- Second, individual component chemical substances extracted from a byproduct are reportable substances if they are extracted for a commercial purpose, even if the manufacture of the byproduct itself is not reportable pursuant to 720.30(g).
- Third, a "component chemical substance" means a chemical substance that already exists in the byproduct. If the recycling process involves breaking chemical bonds or forming new chemical bonds to convert a chemical substance in the byproduct into a new chemical substance (which is then extracted), then the recycling process does not count as extracting a component chemical substance of the byproduct. Note: In circumstances where other substances in the byproduct are chemically reacted in order to facilitate the separation of a component chemical substance, but the component chemical substance itself is not chemically changed before being extracted, then the process does constitute an extraction of the unchanged component chemical substance.

Note: Small businesses are generally not required to report information under IUR. Below are the two standards that can be used to qualify you as a small business for IUR purposes. Note that you may be a small business for one substance but, because of production volume, not for another (40 FR 704.3, referenced by 40 CFR 711.9).

(1) *First standard.* A manufacturer or importer of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$40 million. However, if the annual production or importation volume of a particular substance at any individual site owned or controlled by the manufacturer or importer is greater than 45,400 kilograms (100,000 pounds), the manufacturer or importer shall not qualify as small for purposes of reporting on the production or importation of that substance at that site, unless the manufacturer or importer qualifies as small under standard (2) of this definition.

(2) *Second standard.* A manufacturer or importer of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$4 million, regardless of the quantity of substances produced or imported by that manufacturer or importer.

Notwithstanding this exclusion, a person who qualifies as a small manufacturer is required to report under the IUR regulation for any chemical substance that is the subject of a rule, proposed or promulgated under section 4, 5(b)(4), or 6 of TSCA, or is the subject of an order in effect under section 5(e) of TSCA, or is the subject of relief that has been granted under a civil action under section 5 or 7 of TSCA. (40 CFR 711.9)

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Am I manufacturing a byproduct or a coproduct? What is the difference?

The simultaneous manufacture of multiple chemical substances can occur for a variety of reasons. In the case of byproduct manufacture, the byproduct is manufactured without any separate commercial intent—that is, without any commercial intent other than the commercial intent to manufacture, process, use, or dispose of some other chemical substance or mixture. See 40 CFR 704.3 (definition of “byproduct”). The Inventory listing and IUR requirements are based on the disposition of the byproduct, as explained above.

In the case of coproduct manufacture, there is commercial intent to produce the coproduct, separate from whatever commercial intent may concurrently exist to manufacture, process, use, or dispose of some other chemical substance or mixture. If both coproducts are chemical substances under TSCA, both are required to be listed on the Inventory unless otherwise excluded and both are subject to the IUR if listed on the Inventory.

Byproducts whose only commercial purpose is as a source from which component chemical substances are extracted are not subject to Inventory listing or IUR. What is meant by “extract a component chemical substance”?

A component chemical substance is a chemical substance that is present in the byproduct prior to extraction. Heat or chemical reactions can be used to extract a component chemical substance, but the substance extracted must be unchanged chemically by the extraction. If the substance obtained from the byproduct has been chemically reacted in order to obtain it, such that it is not the same substance that existed in the byproduct, then the substance is not a component substance of the byproduct.

Moreover, if the substance recovered from a byproduct is produced as a result of a chemical reaction occurring on a chemical precursor or derivative of that substance, the recovered substance is considered to be manufactured for commercial purposes. In addition, in this case the byproduct is also considered to be a reportable chemical substance.

Note that the component chemical substance is to be a specific chemical substance. For instance, elemental Nickel (Ni^0) and nickel hydroxide ($\text{Ni}(\text{OH})_2$) have different molecular identities and are not the same chemical substance. Additionally, because the Ni^{+2} ion cannot exist on its own and is therefore not considered a chemical substance, the Ni^{+2} ion is not considered a component chemical substance of the byproduct. Consider the following scenarios:

Scenario 1: If Ni^0 is recovered from a byproduct containing $\text{Ni}(\text{OH})_2$ as a component chemical substance, then an extraction of a component chemical substance has NOT occurred. Rather, the byproduct has been used as a chemical feedstock to manufacture Ni^0 , and both the byproduct and Ni^0 are therefore subject to IUR.

Scenario 2: If $\text{Ni}(\text{OH})_2$ is recovered from a byproduct containing $\text{Ni}(\text{OH})_2$ as a component chemical substance, then an extraction of a component chemical substance has occurred. In this case, the byproduct is not subject to IUR. The $\text{Ni}(\text{OH})_2$ is subject to IUR, as the extracted chemical itself does not qualify for the exemption at 40 CFR

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720.30(g) (the provision applies to the byproduct, not to the chemical substance extracted from the byproduct).

For TSCA purposes, chemical substances are uniquely identified, typically by a Chemical Abstract Service registry number (CASRN), and listed on the Inventory. In certain circumstances, an accession number or PMN number may be used in place of a CASRN; these numbers are assigned by EPA.

EPA has a lot of programs encouraging recycling. If I am recycling my byproduct, I don't need to be concerned about Inventory listings or the IUR, correct?

EPA does encourage recycling, and has many programs to educate people and encourage recycling and reuse of materials. However, the Inventory is a listing of chemical substances in commerce, and many recycling activities involve bringing materials into commerce that otherwise would be disposed of as a waste and perhaps landfilled. If your manufactured substances are being recycled, you do need to consider whether those substances are to be listed on the Inventory. In addition, those substances may be subject to the IUR.

As with all manufactured chemicals, IUR information on byproduct chemicals is of interest to the EPA because such exposure-related information is not otherwise available, and it is necessary for the Agency to manage risks associated with these chemicals, to fulfill its mandate of protecting human health and the environment. EPA does not believe byproducts inherently pose lower exposures or risks than other manufactured chemicals.

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**EXAMPLES: Recycling and the TSCA Inventory of Chemical Substances
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The following examples consider the reporting responsibilities associated with recycling, reusing, reprocessing, or remanufacturing chemical substances. Please note that these examples are not comprehensive and that each situation needs to be individually considered. If after reviewing these examples you remain unclear about your own situation, please contact the EPA.

General examples

A) When component chemical X is separated (extracted) from chemical Y, the activity constitutes "manufacturing." PMN and/or IUR reporting for chemical X may be required, assuming other reporting conditions, such as production volume, are met, and whether chemical X is listed on the TSCA Inventory. When this type of extraction occurs, chemical Y is usually a more complex substance such as a process stream or a class 2 chemical substance containing different isomers.

B) When 80% pure chemical A (listed as chemical A in the TSCA Inventory) is purified to make 98% pure chemical A, the activity does not constitute manufacturing, but it is considered to be processing of chemical A for purposes of IUR and PMN reporting. The two batches of chemical A differ only in their purity. For purposes of TSCA, they are considered to be the same chemical substance. Note that the original manufacturing of the 80% pure chemical A does trigger reporting under IUR. Note also that the need to report any substance produced during the purification process may need to be addressed.

C) Your byproduct is listed on the TSCA Inventory and contains a component substance (chemical R). Without removing chemical R from the byproduct, you react chemical R with another substance to produce chemical M for a commercial purpose. In this scenario, chemical M is not a component chemical substance present in the byproduct and has been newly created. The byproduct has been used to manufacture chemical M, which is also listed on the TSCA Inventory. Both the byproduct and chemical M are subject to IUR requirements. Chemical R was never separated from the byproduct and is therefore not subject to either inventory listing or update reporting requirements.

D) When a component chemical substance (chemical C) of a byproduct (e.g., a multi-component substance) is extracted by heating (distillation or fractionation) from that byproduct, the component chemical substance is manufactured and is therefore subject to reporting under IUR. Note that, in order to be considered a "component chemical substance," the chemical C that is extracted must be actually present in the byproduct. If the portion of the byproduct that remains after chemical C is extracted is disposed of as a waste, the byproduct is exempt from IUR, as stipulated in 40 CFR 720.30(g).

E) For recycling or reclaiming, it is important to determine whether the resulting chemical substance is the same or different than the starting material. If the starting and resulting substances are the same (e.g., distillation of dirty solvent to generate a cleaner batch of the same solvent), then the activity is considered to be processing and no manufacturing has occurred. If

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the resulting substance is different, for example, reduction of copper oxide to elemental copper, then the activity is considered to be manufacturing.

F) A manufacturer may send byproduct materials to an unrelated plant for recycling rather than disposing of the byproduct material as a waste. Typically recycling the byproduct will result in IUR responsibilities (assuming other criteria, such as production volume, are met). However, there are certain commercial uses to which a byproduct may be put, specified in 720.30(g), which relieve the byproduct manufacturer from the need to report the byproduct. For instance, if the recycler extracts a component chemical substance from the byproduct for a commercial purpose, then the byproduct manufacturer need not report the byproduct. An example where reporting would be required involves a spent cupric chloride etchant. If the spent etchant is recycled, and the recycler produces elemental copper from the spent etchant, then the recycler used the spent etchant as a feedstock and did not extract a component chemical substance. The byproduct manufacturer should report the spent etchant and the recycler should report the elemental copper (assuming other requirements, such as production volume, are met). Note that the reason for recycling the byproduct is not a consideration in whether the exemption provision at 720.30(g) applies.

Specific examples

Question 1: My site consists of a petroleum refinery and a chemical plant. The refinery chemically removes sulfur from crude oil. The sulfur is then used as an intermediate by our chemical plant to produce other chemical substances. Do I need to report the sulfur under the IUR rule? What if the chemical plant does not use the sulfur, but it is instead removed from the crude oil and disposed of as a waste in a landfill?

Answer 1: The manufacture of the sulfur byproduct is reportable under the IUR rule if you then use that sulfur byproduct as an intermediate to produce other chemical substances. If you dispose of the sulfur as waste, however, you do not need to report manufacture of the sulfur under the IUR. If your site disposes of a portion of the sulfur and uses the remainder to manufacture other chemicals, you should provide IUR reporting of only the amount of sulfur used to manufacture other chemicals. (See 40 CFR 711.10(c) and 40 CFR 720.30(h)(2))

Question 2: At a site, an ore (e.g., bauxite) is refined to create a product (e.g., alumina). The ore contains a metal substance which is reduced to the elemental state, removed from the product during processing, and disposed of as waste. Should the elemental form of this metal be reported under the IUR rule?

Answer 2: No. Reporting is not required if the byproduct metal is disposed of as a waste. See 40 CFR 711.10(c) which references 40 CFR 720.30(g).

Question 3: If the elemental metal byproduct mentioned in the previous question is sold, is it subject to IUR reporting requirements?

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Answer 3: Yes, because neither the exemption provision at 40 CFR 720.30(g) nor the exemption provision at 40 CFR 720.30(h)(2) would apply to the manufacture of this byproduct metal. Because the byproduct metal is being used for a commercial purpose (other than the commercial purposes listed in 40 CFR 720.30(g)), you would evaluate the IUR reporting requirements for this substance (e.g., was the amount of the byproduct metal produced at a single site during the reporting year 25,000 lb. or more?)

Question 4: My metal smelting process generates a large amount of dust, which is collected in a baghouse. Since this dust has a high metal content, we recycle the baghouse dust rather than disposing of it. Do I have any reporting obligations for this material?

Answer 4: The baghouse dust is a byproduct of your manufacturing process. If you use it for a non-exempt commercial purpose, you would evaluate the IUR reporting requirements for the baghouse dust (e.g., was the amount of the baghouse dust produced at a single site during the reporting year 25,000 lb. or more?) or the PMN reporting requirements, if the substance is not listed on the TSCA Inventory.

An example of a non-exempt commercial purpose is to smelt the baghouse dust to produce a metal. The smelting process uses chemical reduction, a form of extractive metallurgy. A common mistake is to think that at high temperature the metal just melts out of the ore or baghouse dust. However, if you just heat up the ore without the proper reducing agent, you will just obtain molten ore. A metal obtained from baghouse dust by chemical reduction or smelting is manufactured using a chemical reaction, and cannot be considered to be a component chemical substance (which would have potentially qualified the byproduct for the 720.30(g) exclusion from reporting). Both the baghouse dust and the metal produced by the smelting process are subject to reporting under the IUR.

Question 5: In the secondary aluminum process, scrap is remelted to recover aluminum recycled alloy ingot (RSI). Is the recovered aluminum reportable?

Answer 5: Recovered aluminum alloys from scrap are mixtures. The aluminum is separated without chemical alteration and therefore is not reportable under the IUR. Keep in mind, however, that if you import aluminum scrap to re-melt, that the import of the alloy components is reportable under IUR.

Question 6: Chemical substance X is formed unintentionally, without any separate commercial purpose, during the manufacture of another chemical substance, Y. Furthermore, it is not isolated from substance Y. Would it be accurate to describe substance X as an impurity with no reporting obligation?

Answer 6: Yes. Chemical substance X is both a byproduct and an impurity. The unintentional byproduct that remains with the intended product (i.e., is not isolated from that intended product) is an impurity. The manufacture of that impurity is not reportable for PMN or IUR purposes. See 40 CFR 711.10(c) and 40 CFR 720.30(h)(1).

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However, if the chemical substance that remained with the primary product *did* have a separate commercial purpose – for instance, if it improved the performance of the primary product – it would be neither a byproduct nor an impurity and its manufacture would be reportable for PMN or IUR purposes.

Question 7: Our organization uses metal catalysts. When the catalysts are spent, they are sold to metal reclaimers who extract the metals out of the spent catalyst. The only value that we receive for the spent catalyst is the value of the metals reclaimed. Would we have reporting obligations under the IUR for this situation? If so, what substances would actually be reported?

Answer 7: Your spent catalyst is a byproduct, and as such is subject to reporting unless it has no commercial purpose or if its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.) (40 CFR 720.30(g))

Therefore, your spent metal catalyst byproduct is reportable unless the extracted substances are component substances of the byproduct. If the extracted substance is an elemental metal, but the component substance of the byproduct is a metal compound or complex, then the component substance of the byproduct is different from the extracted substance (e.g., some chemical reaction took place to convert the metal compound into elemental metal). In this case, the exemption at 720.30(g)(3) is inapplicable and the byproduct is potentially reportable under the IUR.

If the byproduct is potentially reportable under the IUR, note that any applicable IUR reporting thresholds for the byproduct manufacturer would be based on the *weight of the byproduct*, not the weight of the reclaimable metal content. By contrast, any applicable IUR reporting thresholds for the metal reclaimer would be based on the weight of the reclaimed metal, not the weight of the byproduct.

Finally, per 40 CFR 711.8(b), any person who manufactured (including imported) for commercial purposes any chemical substance that is the subject of certain actions under TSCA is subject to reporting for that chemical, regardless of the production volume

Question 8: We have facilities that recycle spent solvents. The spent solvents are received as a hazardous waste and are often complex mixtures of different types of solvents. These materials are re-distilled to remove water and other contaminants and to separate the various solvents, and are re-sold as solvents. Is the recycling of the solvents a "manufacturing" activity?

Answer 8: In this case, the spent solvents are considered to be byproducts of use. However, according to 40 CFR 720.30(g), the manufacture of a byproduct is exempt from reporting when the byproduct is solely used to extract a component chemical substance from the byproduct. The extracted component chemical substances, the various purified solvents in this case, are reportable chemical substances.

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Question 9: A U.S. plant is importing aluminum castings for purposes of machining them. Recyclable aluminum chips are a byproduct of the machining process. The plant then sells the recyclable aluminum chips. Would the imported aluminum castings need to be included in the TSCA Inventory Update Report?

Answer 9: Please make sure that the imported aluminum castings meet the TSCA definition of an “article” below. If the aluminum castings are articles, then the import of those castings is exempt from the IUR reporting requirements. See 40 CFR 711.10(b). However, the recyclable aluminum chips produced during the machining process are manufactured byproducts subject to IUR reporting requirements.

The 40 CFR 704.3 definition for *article* is:

An *article* is a manufactured item:

- (1) Which is formed to a specific shape or design during manufacture,
- (2) Which has end use function(s) dependent in whole or in part upon its shape or design during end use, and
- (3) Which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon end use of other chemical substances, mixtures or articles; except that fluids and particles are not considered articles regardless of shape or design.

Question 10: The burning of coal by an electric utility to generate power results in the production of coal ash. The coal ash can be disposed in a landfill, or provided for a beneficial purpose such as for mine fill, to amend soil, to build roadbeds, or for other purposes. Is the coal ash reportable?

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Answer 10: The coal ash is considered a byproduct of your production of power. Your need to report the coal ash under the IUR is dependent upon what is done with the coal ash. In your examples above, disposing of the coal ash in a landfill is considered disposing as a waste, and therefore reporting is not required. The applications of mine fill and building roadbeds are considered commercial uses, and, in those circumstances, the coal ash is IUR-reportable. The amending soil application needs to be examined more closely. In general, EPA agrees that mixing coal ash with mulch is considered soil enrichment. Coal ash is often added to soils as an amendment to correct chemical and physical conditions, thereby promoting better plant growth. Under the IUR rule, a person who manufactures byproducts that are then disposed of as a waste, including in a landfill or for enriching soil, is not subject to reporting for the manufacturing of those byproducts (see 40 CFR 711.10(c), which refers to 720.30(g)). Therefore, the coal ash used for soil enrichment in this example is likely to qualify for the byproduct exemption. On the other hand, note that giving or selling the coal ash to a company that is using it in a product that is packaged and sold is not treating the byproduct coal ash as a waste; it is a commercial use of the coal ash not covered by 720.30(g). In such instance, the coal ash byproduct would be subject to IUR reporting.

Question 11: During a reporting year, a utility extracts melonite from coal ash byproduct and then uses the resulting, purified ash for a commercial purpose. Assuming that 25,000 pounds or more of coal ash is involved, does the utility have to report the coal ash (less the melonite) on Form U? Or is the ash exempt from IUR reporting under the byproduct exemption at 40 C.F.R. 720.30(g) on the basis that ash is a byproduct and a component chemical (melonite) is extracted from the ash for commercial value, even though the remaining ash is eventually used for a beneficial purpose?

Answer 11: The byproduct exemption, 720.30(g), specifies that a byproduct is exempt from reporting if its only commercial purpose is to extract component chemical substances from it for commercial purposes or for one of the other commercial purposes listed in 720.30(g). This question identifies that, not only is a component chemical substance (melonite) removed from the byproduct (coal ash), but the remaining coal ash has an additional commercial purpose. Therefore, up to three substances may be reported – the coal ash, the melonite, and the purified coal ash (if it has a different chemical identity than the original byproduct). Note that if the melonite is simply an impurity in the coal ash and the original and final coal ash byproducts have the same chemical identity (i.e., CASRN), then only the melonite and the final coal ash are reported. Additionally, if the remaining coal ash is used in another manner that is also exempted by 720.30(g), such as for enriching soil, then it may also be exempted from reporting.

Question 12: The paper pulping process involves a recycling loop for the pulping chemicals. The spent pulping liquors (also called black liquor) is a byproduct of the pulping process. The black liquor is burned to produce power, and the resulting smelt is recovered to begin the process to make white liquor. Since the black liquor is used as a fuel, do I need to report it under the IUR? How about the smelt?

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Answer 12: As a byproduct, the black liquor is reportable when used for a non-exempt commercial purpose. While the black liquor is burned to generate power, the remainder of the byproduct underwent a chemical change to become smelt. The smelt is then used to manufacture white liquor. Because the white liquor is used for a commercial purpose – as a pulping chemical – the black liquor byproduct does not meet the 720.30(g) exemption.

The relevant exemption is found in 720.30(g), which provides the requirements for certain byproducts that have limited commercial purposes to be excluded from PMN reporting and IUR reporting requirements. The section states that a byproduct is excluded if:

“...its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)”

Note that, while the black liquor is a byproduct burned as a fuel, it is also used to manufacture smelt (and, ultimately, white liquor). If the smelt were disposed of as a waste in a landfill, then reporting the black liquor would not be required.